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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,213	03/30/2001	Michael R. Dunlavey	261/048	6077

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EXAMINER

THANGAVELU, KANDASAMY

ART UNIT PAPER NUMBER

2123

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/823,213	DUNLAVEY, MICHAEL R.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kandasamy Thangavelu	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 1-19 of the application have been examined.

#### ***Information Disclosure Statement***

2. Acknowledgment is made of the information disclosure statements filed on September 6, 2001 together with copies of the patents and papers. The patents and papers have been considered.

#### ***Drawings***

3. The drawings submitted on March 30, 2001 are accepted.

#### ***Specification***

4. The disclosure is objected to because of the following informalities:

Page 2, Para 07, Line 5, "The pre-determined scheduled can then be saved in data storage area 25" appears to be incorrect and it appears that it should be "The pre-determined schedules can then be saved in data storage area 25".

Page 4, Para 12, Lines 2-3, "The schedules can include dosage schedules, observation schedules, an various other types of schedules" appears

Art Unit: 2123

to be incorrect and it appears that it should be "The schedules can include dosage schedules, observation schedules, and various other types of schedules".

Page 7, Para 33, Lines 4-5, "Data storage area 70 can be reside on a volatile or a persistent storage device" appears to be incorrect and it appears that it should be "Data storage area 70 can reside on a volatile or a persistent storage device".

Page 14, Para 67, Lines 6-7, "locally accessed global variables may not need to determined the size of the memory" appears to be incorrect and it appears that it should be "locally accessed global variables may not need to determine the size of the memory".

Appropriate corrections are required.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 2123

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Herren et al.** (U.S. Patent 6,108,635) in view of **Hoskins et al.** (U.S. Patent 6,268,853), and further in view of **Lin et al.** (U.S. Patent 6,735,523), **Heughebaert et al.** (U.S. Patent 6,408,431) and **Lin et al.** (U.S. Patent 6,651,225).

7.1 **Herren et al.** teaches Integrated disease information system. Specifically, as per claim 1, **Herren et al.** teaches a system for clinical trial simulation (Abstract, L1-8 and L17-30; Fig. 3; CL4, L21-31; CL14, L15-20; CL14, L36-37); comprising:

the interface configured to receive information that describes a trial for a clinical trial simulation (Abstract, L1-8 and L17-30; Fig. 3; CL4, L21-28; CL14, L23-30); and

the controller configured to run the executable program (CL4, L21-31; CL14, L15-20).

**Herren et al.** does not expressly teach an interface having a fixed form module and a free form module. **Hoskins et al.** teaches an interface having a fixed form module and a free form module (CL116, L58-60; CL117, L23-28), because the preferred fixed form template language allows different kinds of module specifications that can be used to accommodate different circumstances (CL116, L58-60). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the

Art Unit: 2123

system of **Herren et al.** with the system of **Hoskins et al.** that included an interface having a fixed form module and a free form module. The artisan would have been motivated because the preferred fixed form template language would allow different kinds of module specifications that can be used to accommodate different circumstances.

**Herren et al.** does not expressly teach a trial protocol for a clinical trial simulation. **Lin et al.** ('523) teaches a trial protocol for a clinical trial simulation (CL15, L58-60), because the protocol defines the variables involved and their format for trial simulation (CL15, L58-60). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the system of **Herren et al.** with the system of **Lin et al.** ('523) that included a trial protocol for a clinical trial simulation. The artisan would have been motivated because the protocol would define the variables involved and their format for trial simulation.

**Herren et al.** does not expressly teach a translator having a protocol parser and a code generator, the protocol parser configured to parse the trial protocol, the code generator configured to generate source code in a general purpose programming language. **Heughebaert et al.** teaches a translator having a protocol parser and a code generator, the protocol parser configured to parse the trial protocol, the code generator configured to generate source code in a general purpose programming language (Fig. 3; CL3, L30-53), because the code generator takes information from the specification file and produces a source code file that can be used by the compiler to produce executable code (CL1, L14-16; CL3, L9-12). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the system of **Herren et al.** with the system of **Heughebaert et al.** that included a translator having a protocol parser and a

Art Unit: 2123

code generator, the protocol parser configured to parse the trial protocol, the code generator configured to generate source code in a general purpose programming language. The artisan would have been motivated because the code generator would take information from the specification file and produce a source code file that could be used by the compiler to produce executable code.

**Herren et al.** does not expressly teach a compiler having a code parser and a machine code generator, the compiler configured to compile the generated source code into an executable program. **Heughebaert et al.** teaches a compiler having a code parser and a machine code generator, the compiler configured to compile the generated source code into an executable program (Fig. 3; CL3, L30-53; CL3, L9-12), because as per **Herren et al.** that allows the computer based system to receive the biological parameters, disease measures, patient characteristics etc.; perform simulation of clinical trials; and output results of analyses to support identification of targets and interventions, design clinical trials analysis of the interventions and present disease progression information (CL4, L21-31; CL14, L15-20). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the system of **Herren et al.** with the system of **Heughebaert et al.** that included a compiler having a code parser and a machine code generator, the compiler configured to compile the generated source code into an executable program. The artisan would have been motivated because that would allow the computer based system to receive the biological parameters, disease measures, patient characteristics etc.; perform simulation of clinical trials; and output results of analyses to support identification of targets and interventions, design clinical trials analysis of the interventions and present disease progression information.



**Herren et al.** does not expressly teach a controller communicatively coupled with the interface, the translator, and the compiler. **Lin et al.** ('225) teaches a controller communicatively coupled with the interface, the translator, and the compiler (CL13, L37-45), because that allows the controller to control the interface between the input interface, the code generator, the compiler and the simulator (CL13, L39-45). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the system of **Herren et al.** with the system of **Lin et al.** ('225) that included a controller communicatively coupled with the interface, the translator, and the compiler. The artisan would have been motivated because that would allow the controller to control the interface between the input interface, the code generator, the compiler and the simulator.

7.2 As per claim 2, **Herren et al.**, **Hoskins et al.**, **Lin et al.** ('523), **Heughebaert et al.** and **Lin et al.** ('225) teach the system of claim 1. **Herren et al.** does not expressly teach that the fixed form module is configured to receive trail protocol information conforming to a structured format. **Hoskins et al.** teaches that the fixed form module is configured to receive trail protocol information conforming to a structured format (CL116, L58-60; CL117, L23-28), because the preferred fixed form template language allows different kinds of module specifications that can be used to accommodate different circumstances (CL116, L58-60). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the system of **Herren et al.** with the system of **Hoskins et al.** that included the fixed form module being configured to receive trail protocol information conforming to a structured format. The artisan would have been

Art Unit: 2123

motivated because the preferred fixed form template language would allow different kinds of module specifications that can be used to accommodate different circumstances.

7.3 As per claim 3, **Herren et al.**, **Hoskins et al.**, **Lin et al.** ('523), **Heughebaert et al.** and **Lin et al.** ('225) teach the system of claim 2. **Herren et al.** does not expressly teach the free form module is configured to receive trial protocol information conforming to a trial design language. **Heughebaert et al.** teaches the free form module is configured to receive trial protocol information conforming to a trial design language (Fig. 3; CL3, L30-53), because that allows specification of the trial protocol information containing the distinctive features of the code to be generated with the aid of the trial design (specification) language (CL3, L32-34). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the system of **Herren et al.** with the system of **Heughebaert et al.** that included the free form module being configured to receive trial protocol information conforming to a trial design language. The artisan would have been motivated because that would allow specification of the trial protocol information containing the distinctive features of the code to be generated with the aid of the trial design (specification) language.

8. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Herren et al.** (U.S. Patent 6,108,635) in view of **Hoskins et al.** (U.S. Patent 6,268,853), and further in view of **Lin et al.** (U.S. Patent 6,735,523), **Heughebaert et al.** (U.S. Patent 6,408,431), **Lin et al.** (U.S. Patent 6,651,225) and **Fink et al.** (U.S. Patent 5,808,918).

Art Unit: 2123

8.1 As per claim 4, **Herren et al.**, **Hoskins et al.**, **Lin et al.** ('523), **Heughebaert et al.** and **Lin et al.** ('225) teach the system of claim 1. **Herren et al.** teaches a dosing schedule (Fig. 12b). **Herren et al.** does not expressly teach the trial protocol comprises a plurality of schedules. **Fink et al.** teaches the trial protocol comprises a plurality of schedules (CL13, L21-25), because that allows the computer based system to simulate various combinations of schedules to predict and successfully alter clinical outcomes manifested as signs and symptoms of the disease (CL3, L32-34). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the system of **Herren et al.** with the system of **Fink et al.** that included the trial protocol comprising a plurality of schedules. The artisan would have been motivated because that would allow the computer based system to simulate various combinations of schedules to predict and successfully alter clinical outcomes manifested as signs and symptoms of the disease.

Per claim 5: **Herren et al.** teaches that the plurality of schedules comprises a dosing schedule (Fig. 12b).

8.2 As per claim 6, **Herren et al.**, **Hoskins et al.**, **Lin et al.** ('523), **Heughebaert et al.**, **Lin et al.** ('225) and **Fink et al.** teach the system of claim 4. **Herren et al.** does not expressly teach the plurality of schedules comprises an observation schedule. **Fink et al.** teaches the plurality of schedules comprises an observation schedule (CL13, L21-25), because that allows the computer based system to simulate various combinations of schedules to predict and successfully alter clinical outcomes manifested as signs and

Art Unit: 2123

symptoms of the disease (CL3, L32-34). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the system of **Herren et al.** with the system of **Fink et al.** that included the plurality of schedules comprising an observation schedule. The artisan would have been motivated because that would allow the computer based system to simulate various combinations of schedules to predict and successfully alter clinical outcomes manifested as signs and symptoms of the disease.

9. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Herren et al.** (U.S. Patent 6,108,635) in view of **Hoskins et al.** (U.S. Patent 6,268,853), and further in view of **Lin et al.** (U.S. Patent 6,735,523), **Heughebaert et al.** (U.S. Patent 6,408,431), **Lin et al.** (U.S. Patent 6,651,225), **Fink et al.** (U.S. Patent 5,808,918) and **Whitehill et al.** (U.S. Patent 6,708,329).

9.1 As per claims 7 and 8, **Herren et al.**, **Hoskins et al.**, **Lin et al.** ('523), **Heughebaert et al.**, **Lin et al.** ('225) and **Fink et al.** teach the system of claim 6. **Herren et al.** does not expressly teach the executable program comprises a plurality of programmable state machines; and each state machine corresponds to a discrete one of the plurality of schedules. **Whitehill et al.** teaches the executable program comprises a plurality of programmable state machines; and each state machine corresponds to a discrete one of the plurality of schedules (CL5, L4-11), because the functionality of the elements are indicated in the form of state machines that utilize the software modules to simulate the functions (CL5, L4-7). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the system of **Herren et al.** with

Art Unit: 2123

the system of **Whitehill et al.** that included the executable program comprising a plurality of programmable state machines; and each state machine corresponds to a discrete one of the plurality of schedules. The artisan would have been motivated because the functionality of the elements would be indicated in the form of state machines that utilized the software modules to simulate the functions.

10. Claims 9, 11, 12, 14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Herren et al.** (U.S. Patent 6,108,635) in view of **Lin et al.** (U.S. Patent 6,735,523), and further in view of **Heughebaert et al.** (U.S. Patent 6,408,431) and **Fink et al.** (U.S. Patent 5,808,918).

10.1 As per claim 9, **Herren et al.** teaches a method for clinical trial simulation (Abstract, L1-8 and L17-30; Fig. 3; CL4, L21-31; CL14, L15-20; CL14, L36-37); comprising:

receiving information that describes a trial for a clinical trial simulation (Abstract, L1-8 and L17-30; Fig. 3; CL4, L21-28; CL14, L23-30); and

executing the program as part of the clinical trial simulation (CL4, L21-31; CL14, L15-20).

**Herren et al.** does not expressly teach a trial protocol for a clinical trial simulation. **Lin et al.** ('523) teaches a trial protocol for a clinical trial simulation (CL15, L58-60), because the protocol defines the variables involved and their format for trial simulation (CL15, L58-60). It would have been obvious to one of ordinary skill in the art

Art Unit: 2123

at the time of Applicant's invention to modify the method of **Herren et al.** with the method of **Lin et al.** ('523) that included a trial protocol for a clinical trial simulation. The artisan would have been motivated because the protocol would define the variables involved and their format for trial simulation.

**Herren et al.** teaches a dosing schedule (Fig. 12b). **Herren et al.** does not expressly teach arranging the trial protocol information into a plurality of schedules. **Fink et al.** teaches arranging the trial protocol information into a plurality of schedules (CL13, L21-25), because that allows the computer based system to simulate various combinations of schedules to predict and successfully alter clinical outcomes manifested as signs and symptoms of the disease (CL3, L32-34). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of **Herren et al.** with the method of **Fink et al.** that included arranging the trial protocol information into a plurality of schedules. The artisan would have been motivated because that would allow the computer based system to simulate various combinations of schedules to predict and successfully alter clinical outcomes manifested as signs and symptoms of the disease.

**Herren et al.** does not expressly teach translating the plurality of schedules into a general purpose, high level programming language. **Heughebaert et al.** teaches translating the plurality of schedules into a general purpose, high level programming language (Fig. 3; CL3, L30-53), because the code generator takes information from the specification file and produces a source code file that can be used by the compiler to produce executable code (CL1, L14-16; CL3, L9-12). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of

Art Unit: 2123

**Herren et al.** with the method of **Heughebaert et al.** that included translating the plurality of schedules into a general purpose, high level programming language. The artisan would have been motivated because the code generator would take information from the specification file and produce a source code file that could be used by the compiler to produce executable code.

**Herren et al.** does not expressly teach compiling the translated plurality of schedules into an executable program. **Heughebaert et al.** teaches compiling the translated plurality of schedules into an executable program (Fig. 3; CL3, L30-53; CL3, L9-12), because as per **Herren et al.** that allows the computer based system to receive the biological parameters, disease measures, patient characteristics etc.; perform simulation of clinical trials; and output results of analyses to support identification of targets and interventions, design clinical trials analysis of the interventions and present disease progression information (CL4, L21-31; CL14, L15-20). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of **Herren et al.** with the method of **Heughebaert et al.** that included compiling the translated plurality of schedules into an executable program. The artisan would have been motivated because that would allow the computer based system to receive the biological parameters, disease measures, patient characteristics etc.; perform simulation of clinical trials; and output results of analyses to support identification of targets and interventions, design clinical trials analysis of the interventions and present disease progression information.

Per claim 11: **Herren et al.** teaches that the plurality of schedules comprises a dosing schedule (Fig. 12b).

10.2 As per claim 12, **Herren et al.**, **Lin et al.** ('523), **Heughebaert et al.**, and **Fink et al.** teach the method of claim 9. **Herren et al.** does not expressly teach the plurality of schedules comprises an observation schedule. **Fink et al.** teaches the plurality of schedules comprises an observation schedule (CL13, L21-25), because that allows the computer based system to simulate various combinations of schedules to predict and successfully alter clinical outcomes manifested as signs and symptoms of the disease (CL3, L32-34). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of **Herren et al.** with the method of **Fink et al.** that included the plurality of schedules comprising an observation schedule. The artisan would have been motivated because that would allow the computer based system to simulate various combinations of schedules to predict and successfully alter clinical outcomes manifested as signs and symptoms of the disease.

10.3 As per Claims 14, 16 and 17, these are rejected based on the same reasoning as Claims 9, 11 and 12, supra. Claims 14, 16 and 17 are computer readable medium claims reciting the same limitations as Claims 9, 11 and 12, as taught throughout by **Herren et al.**, **Lin et al.** ('523), **Heughebaert et al.** and **Fink et al.**

11. Claims 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Herren et al.** (U.S. Patent 6,108,635) in view of **Hoskins et al.** (U.S. Patent 6,268,853),



Art Unit: 2123

and further in view of **Lin et al.** (U.S. Patent 6,735,523), **Heughebaert et al.** (U.S. Patent 6,408,431), and **Fink et al.** (U.S. Patent 5,808,918).

11.1 As per claim 10, **Herren et al.**, **Lin et al.** ('523), **Heughebaert et al.** and **Fink et al.** teach the method of claim 9. **Herren et al.** does not expressly teach receiving trial protocol information that conforms to a structured format. **Hoskins et al.** teaches receiving trial protocol information that conforms to a structured format (CL116, L58-60; CL117, L23-28), because the preferred fixed form template language allows different kinds of module specifications that can be used to accommodate different circumstances (CL116, L58-60). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of **Herren et al.** with the method of **Hoskins et al.** that included receiving trial protocol information that conforms to a structured format. The artisan would have been motivated because the preferred fixed form template language would allow different kinds of module specifications that can be used to accommodate different circumstances.

**Herren et al.** does not expressly teach receiving trial protocol information that conforms to a trial design language. **Heughebaert et al.** teaches receiving trial protocol information that conforms to a trial design language (Fig. 3; CL3, L30-53), because that allows specification of the trial protocol information containing the distinctive features of the code to be generated with the aid of the trial design (specification) language (CL3, L32-34). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of **Herren et al.** with the method of **Heughebaert et al.** that included receiving trial protocol information that conforms to a

Art Unit: 2123

trial design language. The artisan would have been motivated because that would allow specification of the trial protocol information containing the distinctive features of the code to be generated with the aid of the trial design (specification) language.

11.2 As per Claim 15, it is rejected based on the same reasoning as Claim 10, supra. Claim 15 is computer readable medium claim reciting the same limitations as Claim 10, as taught throughout by **Herren et al.**, **Hoskins et al.**, **Lin et al.** ('523), **Heughebaert et al.** and **Fink et al.**

12. Claims 13, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Herren et al.** (U.S. Patent 6,108,635) in view of **Lin et al.** (U.S. Patent 6,735,523), and further in view of **Heughebaert et al.** (U.S. Patent 6,408,431), **Fink et al.** (U.S. Patent 5,808,918) and **Whitehill et al.** (U.S. Patent 6,708,329).

12.1 As per claim 13, **Herren et al.**, **Lin et al.** ('523), **Heughebaert et al.** and **Fink et al.** teach the method of claim 9. **Herren et al.** does not expressly that teach the executable program comprises a plurality of programmable state machines, each state machine corresponding to a discrete one of the plurality of schedules. **Whitehill et al.** teaches that teach the executable program comprises a plurality of programmable state machines, each state machine corresponding to a discrete one of the plurality of schedules (CL5, L4-11), because the functionality of the elements are indicated in the form of state machines that utilize the software modules to simulate the functions (CL5, L4-7). It would have been obvious to one of ordinary skill in the art at the time of Applicant's

Art Unit: 2123

invention to modify the method of **Herren et al.** with the method of **Whitehill et al.** that included the executable program comprising a plurality of programmable state machines, each state machine corresponding to a discrete one of the plurality of schedules. The artisan would have been motivated because the functionality of the elements would be indicated in the form of state machines that utilized the software modules to simulate the functions.

12.2 As per Claim 18, it is rejected based on the same reasoning as Claim 13, supra. Claim 18 is computer readable medium claim reciting the same limitations as Claim 13, as taught throughout by **Herren et al.**, **Lin et al.** ('523), **Heughebaert et al.**, **Whitehill et al.** and **Fink et al.**

12.3 As per Claim 19, it is rejected based on the same reasoning as Claim 18, supra. Claim 19 is computer system claim reciting the same limitations as Claim 18, when claim 14 limitations are included in claim 18, as taught throughout by **Herren et al.**, **Lin et al.** ('523), **Heughebaert et al.**, **Whitehill et al.** and **Fink et al.**

### ***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kandasamy Thangavelu whose telephone

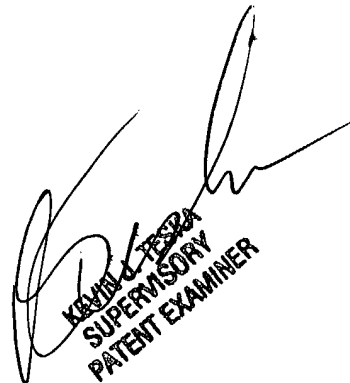
Art Unit: 2123

number is 703-305-0043. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska, can be reached on (703) 305-9704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

K. Thangavelu  
Art Unit 2123  
August 4, 2004



KEVIN TESKA  
SUPERVISORY  
PATENT EXAMINER